

REMARKS

Claims 6 and 8-10 are currently pending in the instant application.

Claim 6 has been amended to specify that the washing liquid recited therein comprises a basic compound and mannitol. In conjunction with the incorporation of the subject matter of claim 7 into claim 6, claim 7 has been canceled. Claim 9 has been amended to depend from claim 6 as amended herein. The amendments made herein more specifically point out and distinctly claim Applicant's invention wherein the washing liquid includes mannitol. For the sake of clarity, Applicant specifically notes that the amendments made herein do not in any way exclude additional sugar alcohols and/or saccharides from inclusion in the washing liquid set forth in the claims. The amendments made herein merely highlight the required presence of a basic compound and mannitol. The amendments made herein introduce no new matter and no excess claim fees are necessitated. Additionally, a listing of all claims ever presented in accordance with 37 C.F.R. §1.121(c)(1) is set forth herein. Accordingly, entry of the amendments made herein is proper and respectfully requested.

In the Office Action, the Examiner rejects claims 6 and 8-10 under 35 U.S.C. §102(b), as being anticipated by U.S. Patent No. 6,030,932 of Leon, *et al.*, and also rejects claims 6 and 8-10 under 35 U.S.C. §102(b), as being anticipated by U.S. Patent No. 6,773,873 of Seijo. While not necessarily agreeing with the Examiner's rejections or the contentions set forth in support thereof, Applicant's amendment of claim 6 to incorporate the subject matter of claim 7, which was not rejected by the Examiner on the basis of the two aforementioned patents, renders the Examiner's rejections moot with respect to the amended claims set forth herein. Accordingly, withdrawal of the Examiner's rejections based on Leon and Seijo is respectfully requested.

In the Office Action, the Examiner rejects claims 6-10 under 35 U.S.C. §102(b), as being anticipated by U.S. Patent Publication No. US2003/0158059 of Sakai, *et al.* (hereinafter referred to as "Sakai"). The Examiner contends that Sakai teaches each and every element of Applicant's claimed invention. Applicant respectfully traverses the Examiner's rejection and the arguments and contentions set forth in support thereof for the following reasons.

To begin with, as amended, Applicant's claimed invention is directed to a method for producing a semiconductor device, wherein the method includes forming a copper wiring with a chemical mechanical polishing and washing with a washing liquid for the semiconductor substrate which comprises a basic compound and mannitol.

In order for a rejection under 35 U.S.C. §102(b) to be proper, the reference upon which the rejection is based must teach, either explicitly or implicitly, each and every element of Applicant's claimed invention.

Applicant respectfully submits that Sakai does not teach *with the requisite specificity to support an anticipation rejection*, the washing of a semiconductor substrate having a chemically-mechanically polished copper wiring with a washing liquid which includes BOTH a basic compound and mannitol. Sakai discloses a multitude of potential ingredients for inclusion in a semiconductor substrate washing liquid. Among the many broad classes of constituents which may be contained in such a liquid are basic substances and various reducing agents as set forth in Paragraph [0014] of Sakai. Among the several possible classes of reducing agents which are described in Sakai are sugar alcohols. There are hundreds, perhaps thousands, of possible choice among the classes of compounds listed. However, nowhere in Sakai does the reference specifically teach the combination of a basic compound and a sugar alcohol. Sakai discloses various types of compounds that might be combined with a basic compound for washing a semiconductor substrate. However, Sakai does not disclose a single example of, nor does the reference specifically refer to, the combination of a basic compound AND mannitol. In fact, Sakai does not contain any examples wherein a basic compound is combined with any sugar alcohol. Examples of reducing agents (C, D, F and G) specifically described in combination with a basic compound, which are arguably closets to the claimed invention, are each a saccharide, not sugar alcohols. There is simply no direct teaching in Sakai to combine a basic compound AND mannitol.

Applicant respectfully submits that Sakai does not contain a disclosure which teaches one of ordinary skill in the art to make the requisite critical selection of the specifically claimed components from among the multitude of potential compounds described in the reference. In *Ex parte Wittpenn*, 16 USPQ2d 1730 (BPAI 1990), the Examiner had rejected an

Application No. 10/659,190
Reply to Office Action of January 3, 2006

applicant's claims on the grounds that all of the claimed components were disclosed in a prior art reference (Roggenkamp). In that case, the Board found that although the prior art contained all elements of applicant's invention, the prior art indicated no preference for any particular component of one of the elements. The Board there held that, "... since we have been apprised of no disclosure within the Roggenkamp reference that would have led [one of ordinary skill in the art] to make the **critical** selections to arrive at the claimed surfactant composition, we find that no prima facie case of obviousness has been established and that the rejection before us cannot be sustained." (*Id.* at 1731 (emphasis added)). Clearly, if the lack of disclosure to make a critical selection from among many possible choices can not support an obviousness rejection, it can not support an anticipation rejection.

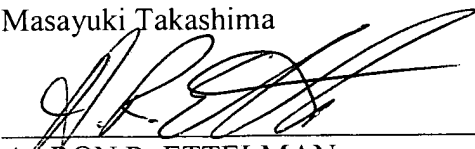
Accordingly, Applicant respectfully submits that Sakai does not support a rejection under 35 U.S.C. §102(b). Thus, reconsideration and withdrawal of the rejection are respectfully requested.

In view of the amendments made herein and the remarks set forth above, Applicant submits that all claims patentably distinguish over the prior art of record and known to Applicant. Reconsideration, withdrawal of all rejections and a Notice of Allowance are respectfully requested.

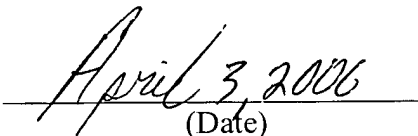
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